

IN THE SPECIFICATION:

Pages 6 and 7, amend the paragraphs starting on page 6 at line 29 and ending on page 7 at line 27 as follows:

—The SiHCl<sub>3</sub> is introduced into the reaction column 1 via an inlet 3 which opens into the column at an appropriate point. In the reaction zone 2, disproportionation of SiHCl<sub>3</sub> yields a lower-boiling SiH<sub>4</sub>-containing product mixture which ascends in the reaction zone and a higher-boiling an SiCl<sub>4</sub>-containing condensate which descends in the reaction zone.

In the reaction column 1, the higher-boiling SiCl<sub>4</sub>-containing condensate exiting from the reaction zone is introduced into a distillative stripping section 4 which is arranged below the reactive/distillative reaction zone 2. From a bottom evaporator 5, arranged below the stripping section, silicon tetrachloride SiCl<sub>4</sub> is dis-charged as bottom product via an outflow 13. The amount of heat required for the disproportionation of SiHCl<sub>3</sub> is introduced into the reaction column by means of the heat exchanger 5.

Above the reaction zone, an intermediate condenser 6 is provided for the lower-boiling SiH<sub>4</sub>-containing product mixture ascending in the reaction zone 2. In this condenser, the SiH<sub>4</sub> concentration in the lower-boiling SiH<sub>4</sub>-containing product mixture is increased by partial condensation of higher-boiling components of the lower-boiling SiH<sub>4</sub>-containing product mixture at a temperature between -25°C and 50°C, preferably between -5°C and 40°C. The heat of condensation is dissipated by a coolant flowing through the intermediate condenser 6. The

lower-boiling product fractions of the lower-boiling SiH<sub>4</sub>-containing product mixture which are not condensed in the intermediate condenser 6 are introduced into a rectifying section 7 which is arranged downstream of the intermediate condenser in the direction of flow of the ascending product fractions, and further concentrated. In the embodiment of Figure 1, the rectifying section 7 is inserted above the intermediate condenser 6 and integrated into the reaction column 1. Alternatively, the rectifying section can be arranged outside the reaction column. The product mixture from the rectifying section 7 is finally taken off at the top of the reaction column via an outlet 8 and introduced into an overhead condenser 9 in which it is condensed and discharged in liquid form, as final SiH<sub>4</sub> product obtained, via an SiH<sub>4</sub> product line 10. Part of the recovered SiH<sub>4</sub> is returned to the top of the reaction column 1 via a branch line 11. The branch line 11 opens into the column above the rectifying section 7.--.